

REMARKS

This amendment is being filed in response to the non-final Office Action mailed April 9, 2010, which was issued following Appellant's Appeal Brief filed on December 16, 2010. In the recent Office Action, claims 34-42 were rejected under Section 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter. Also, claims 20-42 were rejected on prior art grounds. Claims 20, 29, and 33 have been amended. Accordingly, claims 20-42 remain pending in the application.

§112 Rejections

Claims 34-42 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as their invention. The rejection is respectfully traversed for the reasons discussed below.

The Office Action states that claim 34 is unclear as to whether the data signal is modulated or unmodulated. The short answer is that, within the scope of that claim, at least some parts of the data signal are modulated, and at least some other parts of the signal are not modulated, such as during the periods of silence; however, that question and its answer are irrelevant for the purposes of § 112 compliance. Claim 34 recites, *inter alia*, "generating a data signal that includes modulated data and periods of silence during which the data signal is unmodulated." MPEP § 2111.01 states: "the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification," citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989). The plain meaning of this quoted claim language is that the data signal includes at least two things: (1) modulated data, and (2) periods of silence during which the data signal is unmodulated. The claim does not say that these two parts of the signal occur simultaneously (at the same time); to the contrary, those skilled in the art will understand that the claimed portions of the signal occur one after the other - at different times during the signal. An explicit example of this is shown in Fig. 4 which demonstrates that the plain meaning of this language is not "inconsistent with the specification." There is nothing inconsistent or unclear about the data signal (e.g., $S_{out}(t)$) having some portions (e.g., t_0 to t_1) that include modulated data with other portions (e.g., t_1 to t_2) that include periods of silence during which the data signal is unmodulated. And it is totally irrelevant to the definiteness requirements of § 112 whether one

might label that data signal as “modulated” or “unmodulated”. In this regard, there is nothing in MPEP § 2173 *et seq.* or in the judicial authority that provides a basis for holding claim 34 indefinite because of some uncertainty as to how one would label or otherwise characterize the recited “data signal.” The question for indefiniteness is whether the claim language is sufficiently clear and precise that one skilled in the art would understand its meaning and scope, and the Office Action has not identified any basis in the language of the claim for holding that the claim does not meet this requirement. Thus, if this rejection is maintained, Applicants request an explanation of how, in the Examiner’s opinion, the claim language fails under the definiteness analysis required by MPEP § 2173.02.

For these reasons, Applicants respectfully submit that claim 34 and its dependent claims 35-42 all fully comply with 35 U.S.C. § 112, second paragraph. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

§103 Rejections

Claims 20-25 and 29-39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Preston et al (US 7,206,305) in view of McDonald et al (US 6,122,271). Claims 26-28 and 40-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Preston in view of McDonald and further in view of Gardner et al (US 7,146,174). These rejections are respectfully traversed for the reasons discussed below.

The rejection of each of the claims 20-42 is predicated on the Examiner’s interpretation from Preston that the sacrificial bits contained in the IBS packet 70 constitute “periods of silence” as recited in independent claims 20, 29, and 34. In prior submissions Applicants have pointed out that Preston’s sacrificial bits are 1’s and 0’s that are converted to tones using frequencies f1 and f2, and that this is different than Applicants’ recited “periods of silence” because tones are clearly not “silence.” In response, the Examiner has located and added to the rejection the McDonald reference which teaches “silence periods.” (Col. 2, ln. 57-59.) McDonald explains that “as much as 63% of speech is of such low information content that it could be considered silence.” (Col. 2, ln. 64-66.) With respect to this “low information content,” McDonald teaches that a “silence period” is “a period during which no significant information is present in the primary information signal.” (Col. 3, ln. 45-47.) Stated differently,

McDonald admits that information is present but notes that the information's value is of little or no worth. Fundamentally, this characterization differs little from Preston's "sacrificial bits," and the Examiner has therefore relied upon McDonald as supporting the notion that the sacrificial bits of Preston are "silence periods" and therefore "periods of silence" as used in Applicants' claims.

Applicants disagree with the Examiner's determination of how "periods of silence" from the present application would be understood by those skilled in the art. First and foremost, one must look to how claim terms are used by the Applicants in their claims, specification, and file history - what the Court of Appeals for the Federal Circuit termed "intrinsic" evidence in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). Here, Applicants have consistently used the term to refer to portions of the data signal that do not include any modulation of data or other information - whether it be data that is sacrificial or of value. And that is entirely consistent with the disclosed embodiments, one of which is shown in Fig. 4. Of lesser importance according to the Federal Circuit is "extrinsic" evidence that goes outside the application and its file history - such as dictionary definitions and use of terminology from other sources. It is this type of less relevant extrinsic evidence that the Examiner relies upon for the expansive interpretation of "periods of silence" that includes the modulated sacrificial bits of Preston. Applicants submit that it is improper for the Examiner to ignore the intrinsic evidence in favor of less relevant outside sources to determine what proper meaning should be placed on Applicants' terminology.

Regardless of this improper interpretation of "periods of silence," each of the independent claims contain additional limitations that define the data signal characteristics during this "period of silence" in a manner that completely distinguishes Preston and McDonald. In particular, claim 20 has been amended to recite "wherein the periods of silence comprise gaps in the data during which no modulation occurs." These gaps in data are discussed in Applicants' specification and an explicit example is shown in Fig. 4 between time periods t_1 and t_2 , time periods t_3 and t_4 , and time periods t_5 and t_6 . As has been discussed in previous Applicants' responses, Preston specifically modulates its sacrificial bits. So, regardless of how the Examiner interprets "periods of silence" and regardless of whether the Examiner considers the sacrificial bits in Preston to be "data", that reference does not teach or suggest "gaps ... during which no modulation occurs."

Independent claims 29 and 34 also contain express limitations on the data signal characteristics during the periods of silence. Claim 29, as amended, recites that the data signal is modulated with data using frequency shift keying and “periods of silence during which no frequency shift keying modulation occurs” (emphasis added). Again, Preston explicitly teaches modulating the sacrificial bits using frequency shift keying. Claim 34, which had not previously been rejected on prior art grounds, recites, *inter alia*, “generating a data signal that includes modulated data and periods of silence during which the data signal is unmodulated” (emphasis added). As explained above this underlined limitation is not taught by Preston. The Office Action makes no mention of this limitation nor the basis for which it was determined to be disclosed or rendered obvious by the prior art. As required by MPEP § 2143.03, all claim limitations must be considered, even those subject to an indefiniteness rejection, and Applicants respectfully submit that this was not done.

Moreover, Applicants note that McDonald was cited for the purpose of interpreting the term “periods of silence” and nothing from McDonald has been identified that would provide one of ordinary skill with any reason to alter Preston’s modulation of sacrificial bits to instead generate a data signal as variously recited in Applicants’ claims. To the contrary, McDonald teaching using what would otherwise be silence periods to send information, which teaches away from that being recited in Applicants’ claims.

Accordingly, Applicants respectfully submit that independent claims 20, 29, and 34 patentably define over Preston in view of McDonald. Further, claims 21-25 and claims 30-39 each ultimately depend from one of these independent claims and should be allowed therewith.

With respect to the rejection of dependent claims 26-28 and 40-42 on the basis of Preston, McDonald, and Gardner, Applicants note that Gardner has been cited only for its applicability to the additional limitations added in these dependent claims. However, Gardner does not make up for the above-noted deficiencies of Preston and McDonald as applied to the independent claims. Accordingly, claims 26-28 and claims 40-42 also patentably define over these references.

Conclusion

In view of the foregoing, Applicants respectfully submit that all claims are allowable over the prior art. Reconsideration is therefore requested. The Examiner is invited to telephone the undersigned if doing so would advance prosecution of this case.

The Commissioner is hereby authorized to charge Deposit Account No. 07-0960 for any required fees, or credit any overpayment associated with this communication.

Respectfully submitted,

REISING ETHINGTON P.C.

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